DOCUMENT RESUME

ED 469 229 EA 032 006

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TITLE	A Reflection on "Learning To Learn": The Four Pillars of Learning and Their Implications for Curriculum Reforms.
INSTITUTION	International Bureau of Education, Geneva (Switzerland).
PUB DATE	2000-12-00
NOTE	6p.; In: Capacity-Building for Curriculum Specialists in East and South-East Asia. Final Report of the Training Seminar (Bangkok, Thailand, December 12-16, 2000); see ED 458 720.
AVAILABLE FROM	International Bureau of Education, C.P. 199, 1211 Geneva 20, Switzerland. Tel: 41.22.917.78.00; Fax: 41.22.917.78.01; Telex: 415 771 BIE; Web site: http://www.ibe.unesco.org; e-mail: j.fox@ibe.unesco.org. For full text: http://www.ibe.unesco.org/regional/asiannetwork/AsianNetworkPdf/bkrep1.pdf.
PUB TYPE	Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	*Curriculum Development; *Educational Change; *Educational Philosophy; Elementary Secondary Education; Foreign Countries; *Learning Strategies; Lifelong Learning; Relevance (Education); Socioeconomic Influences; Thinking Skills
IDENTIFIERS	*Asia Pacific Region; Globalization

ABSTRACT

In an information-intensive age, education is mandated to respond to two complementary demands: It has to transmit an increasing amount of constantly evolving knowledge and know-how adapted to a knowledge-driven civilization, and it has to enable learners not to be overwhelmed by the flows of information, while keeping personal and social development as its end in view. This presentation focuses on the changes in education emerging over the very recent past, which have mandated fundamental rethinking on roles of education and its content. Four elements or "pillars of education" are proposed that are relevant to a modern world undergoing swift social and economic changes, and swiftly evolving technology: (1) learning to know, which focuses on combining broad general knowledge and basic education; (2) learning to do, with emphasis on practical skills necessary for a profession or trade; (3) learning to be, the underpinning principle of which involves development of the human potential to its fullest; and (4) learning to live together, which is relevant in the current context of globalization. If applied appropriately within the contextual setting around the Asia-Pacific region, these pillars will add great value to the relevance of curriculum content and the delivery of a quality education. (RT)

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A reflection on 'learning to learn': the four pillars of learning and their implications for curriculum reforms

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A reflection on 'learning to learn': the four pillars of learning and their implications for curriculum reforms

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I. INTRODUCTION

The IBE-PROAP Capacity-Building Seminar for Curriculum Specialists is part of UNESCO's endeavour, in close co-operation with its Member States, to develop a broadened vision of educational contents and methods in emerging knowledge-based society and to facilitate a holistic approach to curricular reform/renewal in light of the guiding principle of learning throughout life.

In an information-intensive age, education is mandated to respond to demands in two directions: on the one hand, it has to transmit an increasing amount of constantly evolving knowledge and know-how adapted to a knowledge-driven civilization; on the other hand, it has to enable learners not to be overwhelmed by the flows of information, while keeping personal and social development as its end in view. To quote from the Delors Report, *Learning: the treasure within,* 'Education must ... simultaneously provide maps of a complex world in constant turmoil and the compass that will enable people to find their way in it' (p. 85).

The reform of curriculum content has become increasingly important, inasmuch as it is essential that what students learn is relevant to them as individuals and citizens, in their present and future context, as well as to community and societal development. It is not so much based on the delivery of 'facts' and knowledge, but rather on the skills of learning that can be consistently applied in an ongoing manner, long after leaving the formal education setting.

This presentation focuses on the changes in education emerging over the very recent past, which have mandated fundamental rethinking on roles of education and fundamental changes in the content of education. It is intended to contribute an alternative to the world-wide efforts in the reorganization of education. It is argued, as in the Delors Report, that if education is to succeed in its tasks, curriculum as its core should and could be restructured and re-built upon the four pillars of learning: *learning to know* for acquiring the instruments of understanding, *learning to do* for acting on one's environment, *learning to live together* for co-operation with others in all human activities, and *learning to be* for the full flowering of human potential and multi-dimensional development of the 'complete person'.

II. THE CONTEXT FOR 'CAPACITY BUILDING'

With all the current rhetoric around the region relating to the reform of educational content, delivery and systems, it is essential to understand the context of and need for 'capacity building', as it has become known. In order to complete the process of educational reform, the following contextual factors articulate important pre-requisites for building the capacity of our education systems to deliver high quality and relevant curriculum to learners of all ages.

- Important new policy perspectives are emerging, and required, in the light of the changing nature and trends of development around the region.
- At the same time, these changes have led to a need for revision and improvement of the educational content provided to learners, so that what they learn is relevant to their lives and contexts.
- A broad understanding of the structures and theories of knowledge by those responsible for building the capacity of our education systems is fundamental, so that sound decisions are made.
- Similarly, specialized knowledge of the specific content and contexts of the various disciplines and subject areas is essential before changes can be properly made.
- No one can safely make changes to build the capacity of education without understanding the psychological characteristics and learning needs of the target groups.
- Finally, education policy makers must have a thorough understanding of the pedagogical principles of organized teaching and learning.

III. THE NEED FOR CURRICULUM REFORM

In essence, there is now a need for the fundamental reorganization and re-packaging of the educational content made available to learners.

School curriculum in most Asian education systems has been much over-loaded, and yet many educators have continued to attempt to include new content in the curriculum in order to reflect changes and new needs. Therefore, there is now widespread overcrowding of the

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total curriculum in most systems. Too much material is competing for a finite time available for delivery, with the result that some material is of necessity ignored or brushed over.

Further, education has traditionally not so much involved imparting the skills of learning, but rather the cramming of information and facts, often unrelated to the learners' needs, and largely due to the overcrowded curriculum. The content has also suffered from being narrow in focus and single-discipline oriented, without the benefits of establishing and building on links with other disciplines in an integrated approach for a broad education. Traditionally, there has been a bias against the affective, ethical and values dimension of curriculum content, now seen as vital for a balanced education.

The design and organization of education systems has usually been centralized, with the head offices directing in a top-down, one-way flow of education delivery in a unified and single-style approach. Tragically, the product delivered is all too often also irrelevant to the contemporary needs of learners.

The teaching of life skills and social skills has not previously been recognized as important, nor indeed defined. Life is infinitely more complex in the world of the twenty-first century, and it is important to ensure that learners are adequately equipped to deal with them.

It is also widely observed that the school system tends to cram a narrow range of information into students that specifically prepares them to gain admission into some tertiary course with its restricted entry criteria. This limited approach does not adequately prepare students for life after students leave the security of the formal learning centres and systems.

IV. CHANGED/CHANGING CONTEXTS IN CURRICULUM REFORM

A wide and very significant range of contextual changes combine to emphasize the importance of curriculum and education renewal. Several major factors can be identified:

- With the explosion of information and communication technologies around the world, we are witnessing the emergence and consolidation of a knowledge-based economy and society. Such a major change requires important and expanded roles for education.
- The rift between the rich and the poor around the region is not decreasing, but widening. The Asia-Pacific region has approximately 1.3 billion of its people living below the poverty line, living on less than US$1 per day, and increasingly helpless to alleviate this gap. Policy makers now see education for poverty alleviation as one way of making some inroad into this dilemma.
- As an extension to this last scenario, we now have a new phenomenon described commonly as the 'digital divide', whereby the huge gap between those who have access to information and communication technology and those who do not is exacerbated. Strategic educational policies and planning can go some way to reducing that gap.
- As signaled in the Delors Report, several tensions are emerging. One key example is the threat to the preservation of cultural identity and traditional indigenous knowledge in many communities, due to the overpowering globalization impacts of the knowledge society. There is a growing need for intercultural learning and international understanding, in order to redress this impact.
- Despite the many obvious progressive developments around the region, there are still many people who suffer from what can best be described as social exclusion, due to economic inequity. For instance, 800 million people are under-nourished, 1.3 billion are living without safe water, 880 million adults are functionally illiterate, and around 113 million children still have no access to primary education. Therefore, the absolute priority that UNESCO places on social equity and education for all (EFA) to reach the unreached is very soundly based.
- As a direct consequence of the emphasis around the region on economic growth at any cost, severe environmental and ecological degradation has occurred in many countries. The importance, therefore, of environmental education programmes that articulate sustainable growth and development cannot be overemphasized.
- The processes of material progress and technical change have in many instances led to the alienation and de-humanization of many people. Introducing education programmes that focus on humanistic values can lessen these tragic effects.
- The increasing AIDS epidemic (18.8 million people in the region have died since 1983) shows the clear need for preventive education and culturally-based approaches to prevention and teacher training for 'life-skills' programmes.

V. A NEW EDUCATIONAL VISION FOR ACTION

These changing contexts demand a new vision for education, a vision that accepts the inalienable right for all people to have access to a relevant education, and that many problems and issues can successfully be addressed through appropriate educational policies and programmes.

In a broadening vision for education, it is increasingly accepted that education has expanded roles:

- as a fundamental human right;
- as an investment, for economic, social and political advantages;
- as a tool of empowerment for disadvantaged groups;
- as a principal means for the full development of human potential and individual talents;

- as a cornerstone for a culture of peace;
- as a major avenue towards the sound development of learning societies.

V. MAJOR SHIFTS IN EDUCATION

Over the past few years, several major directional shifts in education have become apparent, which will have major implications for curricular changes:

- From 'schooling' (with the expectation that people only learn during their relatively brief time in the formal school system) to continuous lifelong education.
- From teaching as the delivery of curriculum content, to learning as an active role by the learner.
- From inequality of access to equality of education, or in other words, from 'the best education for the best' (most privileged students) to 'the best education for all'.
- From a focus on financial/material inputs, onto the learning process and the resultant outcomes.
- From a narrow, discipline-based curriculum and teacher-centred education, to a learner-centred, integrated, inter-disciplinary learning.
- From purely quantitative evaluation of cognitive learning achievements in terms of test scores, to qualitative as well as quantitative evaluation of all dimensions of learning outcomes.
- From rigid assessment of individual students/ teachers, to a broader assessment that includes school and system performance indicators.

VI. THE FOUR 'PILLARS OF EDUCATION' AS FUNDAMENTALS

In order that educators and policy makers understand the relevance of the four pillars, a brief snapshot follows of what each relates to in terms of educational context.

1. Learning to know

This pillar focuses on combining sufficiently broad general knowledge and basic education, such as might be experienced in elementary schooling, with the opportunity to work in depth on a small number of subjects, in the light of rapid changes brought about by scientific progress and new forms of economic and social activity. Specific aims include:

- to master the instrument of knowledge;
- to learn how to learn and to discover, so as to benefit from ongoing educational opportunities continuously arising (formally and non-formally) throughout life;
- to develop the faculties of memory, imagination, reasoning and problem-solving;
- to understand about his/her environment;
- to think in a coherent and critical way;
- to communicate with others;
- to acquire a knowledge of the scientific method and instruments;
- to develop a scientific spirit and an inquiring mind;
- to acquire independence of judgement.

2. Learning to do

Emphasis is on the learning of skills necessary to practise a profession or trade, including all schemes in which education and training interact with work. People also need to develop the ability to face a variety of situations, often unforeseeable, and to work in a team approach. Partnerships between education, business and industry are encouraged. Key aims are:

- to apply in practice what has been learned;
- to develop vocational/occupational and technical skills;
- to develop social skills in building meaningful interpersonal relations;
- to transform knowledge into innovations and job-creation;
- to develop competence, a mix of higher skills, of social behaviour, of an aptitude for team work, and initiative/readiness to take risks;
- to develop personal commitment to work;
- to enhance the ability to communicate and to work with others;
- to manage and resolve conflicts.

3. Learning to be

The development of human potential to the fullest is the major priority of this pillar. As we go forward in the twenty-first century, everyone will need to exercise greater independence and judgement, combined with a stronger sense of personal responsibility.

An underpinning principle could be said to be 'the aim of development is the complement of man, in all the richness of his personality', with education contributing to the all-round development of each individual, in the face of the 'dehumanization and personality-alienation' that comes as a result of technical change. Education is above all an inner journey, the stages of which correspond to those of the continuous maturing of the personality. Education as a means to an end of a successful working life is thus a very individualized process. At the same time, it represents a process of constructing social interaction. Fundamental aims of learning to be include:

- cultivating qualities of imagination and creativity;
- developing diversified talents and dimensions of personalities—*aesthetic, artistic, literary, sporting, scientific, cultural and social*;
- developing critical thinking and exercising independent judgment;
- developing personal commitment and responsibility for the public good;
- tapping fully the talents (treasure) hidden within each individual.

4. Learning to live together

In the current context of globalization, the Delors Report places particular emphasis on this pillar. We must come to understand others, their history, traditions and cultures, living and interacting peacefully together. Aims of this pillar include:

- to discover others;
- to appreciate the diversity of the human race;
- to know oneself;
- to be receptive to others and to encounter others through dialogue and debate;
- to care about others;
- to work toward common objectives in co-operative undertakings;
- to manage and resolve conflicts.

VIII. APPROACHES TO CURRICULAR RENEWAL AND REFORM

Given that we have now entered the twenty-first century, it is absolutely essential that educators and policy makers use the broad framework of the four pillars of education and learning to develop a relevant education that will effectively meet the needs of the region's people. In summary, it is advocated that:

- the four pillars of education be used as guiding principles for educational content and practice, in line with the principle of lifelong learning;
- the four pillars of education be used as integrated components of teaching units in individual subjects;
- the four pillars of education be used as themes for inter-disciplinary studies and programmes on major societal or scientific/technological themes, such as in the International Baccalaureate Organisation's *Approaches to learning; theories of knowledge (modules as 'building-blocks' of learning)*;
- diversification of curricular and extra-curricular activities be developed;
- decentralization of curriculum planning be implemented, taking into account the various needs of local learning communities;
- utilizing educational resources in virtual learning environments, in addition to traditional settings.

IX. CONCLUSION

The four pillars of education, as articulated in the Delors Report, provide an excellent basis for the reform and renewal of the basic education curriculum in the Asia-Pacific region. If applied appropriately within the contextual settings around the region, these pillars will add great value to the relevance of curriculum content and the delivery of a quality education that is designed to meet the lifelong needs of learners in their communities.

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